

# LTC2145-14

14-Bit, 125MSPs Low Power Dual ADCs

Production

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**Data Sheet**  
JP

**IBIS Models**  
View All

**Evaluation Software**  
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## Overview

### Features and Benefits | Product Details

- Two-Channel Simultaneously Sampling ADC
- 73.1dB SNR
- 90dB SFDR
- Low Power: 189mW/149mW/113mW Total 95mW/75mW/57mW per Channel
- Single 1.8V Supply
- CMOS, DDR CMOS, or DDR LVDS Outputs
- Selectable Input Ranges: 1V<sub>P-P</sub> to 2V<sub>P-P</sub>
- 750MHz Full Power Bandwidth S/H
- Optional Data Output Randomizer
- Optional Clock Duty Cycle Stabilizer
- Shutdown and Nap Modes
- Serial SPI Port for Configuration
- 64-Pin (9mm x 9mm) QFN Package

**Comparable Parts** | [Click to see all in Parametric Search](#)

Product Lifecycle  Production

At least one model within this product family is in production and available for purchase. The product is appropriate for new designs but newer alternatives may exist.

## Product Categories

- A/D Converters (ADC)
- Standard High Speed A/D Converters >20 MSPS

## Evaluation Kits (1)

### DC1620A-G

[View Detailed Evaluation Kit Information](#)

DC1620A-G: Demo Board for LTC2145-14 14-Bit, 125MSPs Low Power Dual ADCs.

#### Resources

- [DC1620A - Demo Manual](#)
- [DC1620A - Schematic](#)
- [DC1620A - Design Files](#)

#### Software

- [PScope](#)

## Documentation

View All (3) | [Data Sheets \(1\)](#) | [Reliability Data \(1\)](#) | [Evaluation Kit Manuals \(1\)](#)

### Data Sheets

[LTC2145-14/LTC2144-14/LTC2143-14: 14-Bit, 125MSPs/105MSPs/80MSPs Low Power Dual ADCs Data Sheet](#) [PDF](#) 652.00K

### Reliability Data

[R538 Reliability Data](#) [PDF](#) 65.74 K

### Evaluation Kit Manuals

[DC1620A - Demo Manual](#) [PDF](#) 459.00K

## Software & Systems Requirements

### Evaluation Software

[LinearLab Tools](#)  
A collection of Matlab and Python programs that provide direct access to Linear Technology's data converter evaluation boards.

## Tools & Simulations

### IBIS Models

[LTC2185 IBIS model](#) [IBIS](#) 86.00K

## Product Recommendations

### LTC2145-14 Companion Parts

#### Recommended ADC Drivers

- [LTC6406, LTC6409](#)

#### Recommended Suggested Oscillator

- [LTC6946](#)

#### Recommended Related Parts

- [LTC6412](#)

## Reference Materials

View All (4) | [3rd Party Solutions \(1\)](#) | [Product Selector Card \(2\)](#) | [Press Releases \(1\)](#)

### 3rd Party Solutions

[Red Pitaya, STEMlab 125-14, Featuring AD9767, LTC2145-14, LTC3615](#)

### Product Selector Card

[High Speed ADC Portfolio](#) | [16-/14-/12-Bit 125MSPs Dual ADC Family](#)

### Press Releases

[Very Low Power 12-/14-Bit 25MSPs-125MSPs ADCs Operate at Less than 100mW at...](#)

## Design Resources

ADI has always placed the highest emphasis on delivering products that meet the maximum levels of quality and reliability. We achieve this by incorporating quality and reliability checks in every scope of product and process design, and in the manufacturing process as well. "Zero defects" for shipped products is always our goal.

- [LTC2145-14 Material Declaration](#)
- [Quality And Reliability](#)
- [Symbols and Footprints](#)

## Support & Discussions

### LTC2145-14 Discussions

- [ADRV9009-ZU11EG not booting from newest image \(2019\\_R2\)](#) 4 day(s) ago in Linux Software Drivers
- [RE: ADAR1000-EVALZ Addressing Board](#) 4 day(s) ago in RF and Microwave
- [ADRV9002-ZCU102](#) 4 day(s) ago in FPGA Reference Designs

[All LTC2145-14 Discussions](#)

**ADI Technical Support** [Contact ADI Technical Support >](#)

**ADI EngineerZone** [Ask your question >](#)

## Sample & Buy

Model	Package	Pins	Temp Range	Packing Qty	Price (100-499)	Price (1000+)	RoHS	Order from Analog Devices
LTC2145CUP-14#PBF <a href="#">Request</a> <a href="#">PCN/PDN</a> <a href="#">Notification</a> Production	64-Lead QFN (9mm x 9mm x 0.75mm w/ EP)	64	0 to 70C	Tube, 40	\$59.50	\$49.00	Y <a href="#">Info</a>	<a href="#">Purchase</a>
LTC2145CUP-14#TRPBF <a href="#">Request</a> <a href="#">PCN/PDN</a> <a href="#">Notification</a> Production	64-Lead QFN (9mm x 9mm x 0.75mm w/ EP)	64	0 to 70C	Reel, 2000	\$59.60	\$49.06	Y <a href="#">Info</a>	<a href="#">Purchase</a>
LTC2145IUP-14#PBF <a href="#">Request</a> <a href="#">PCN/PDN</a> <a href="#">Notification</a> Production	64-Lead QFN (9mm x 9mm x 0.75mm w/ EP)	64	-40 to 85C	Tube, 40	\$65.45	\$53.90	Y <a href="#">Info</a>	<a href="#">Purchase</a>
LTC2145IUP-14#TRPBF <a href="#">Request</a> <a href="#">PCN/PDN</a> <a href="#">Notification</a> Production	64-Lead QFN (9mm x 9mm x 0.75mm w/ EP)	64	-40 to 85C	Reel, 2000	\$65.55	\$53.96	Y <a href="#">Info</a>	<a href="#">Purchase</a>

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[Price Table Help](#)

### Evaluation Boards

Pricing displayed is based on 1-piece.

Model	Description	Price	RoHS
DC1620A-G Production	LTC2145-14: 14-bit 125MSPs ADC, DDR LVDS Outputs, 5-140MHz, req DC890, LVDS_XFMR and DC1075	\$200.00	Yes
DC890B Production	USB Data Acquisition Controller, for PScope Evaluation Kits (up to 250Mbps, CMOS/LVDS)	\$300.00	Yes

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Up to two boards can be purchased through Analog.com. To order more than two, please purchase through one of our listed distributors. Pricing may vary due to local duties, taxes, fees and exchange rates. The USA list pricing shown is for budgetary use only, shown in United States dollars (FOB USA per unit), and is subject to change. International prices may vary due to local duties, taxes, fees and exchange rates.